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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,670	11/13/2003	Yong Cho	EL0519 US NA	2597

23906 7590 11/17/2005

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EXAMINER

ANTHONY, JOSEPH DAVID

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/712,670	Applicant(s) CHO ET AL.	
	Examiner Joseph D. Anthony	Art Unit 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 6-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-9, drawn to a getter composition, classified in class 252, subclass 181.1.
 - II. Claims 10-11, drawn to a method of moisture control, classified in class 427, subclass 1+.
 - III. Claims 12-13, drawn to an article, classified in class 313, subclass 1+.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used as moisture absorbent without sintering the glass frits.
3. Inventions I and II are related as mutually exclusive inventions in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product, and the inventions are patentably distinct. In the instant case, the intermediate product is deemed to be useful as a moisture absorbent composition contained in a moisture permeable sachet after much of the organic material has been removed without sintering the glass frits, and the inventions are deemed patentably distinct since there is

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nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

4. Inventions II and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by volatilizing the organic polymeric binder emulsified/suspended in an inorganic solvent.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

7. During a telephone conversation with Barbra C. Siegell on 02/01/05 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-9.

Affirmation of this election must be made by applicant in replying to this Office action.

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Claims 10-13 are withdrawn from further consideration by the examiner, 37

CFR 1.142(b), as being drawn to a non-elected invention.

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

9. Claims 6-9 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on another multi-dependent claim. See MPEP § 608.01(n). Accordingly, the claims 6-9 have not been further treated on the merits.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 4-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4 and 5 both use improper Markush claim language since the word "comprising" in line 2 of each claim should rather be --consisting of--.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Tremel et al. U.S. Patent Application Publication No.: 2005/0238803 A1.

Tremel et al teaches method for adhering getter materials to a surface for use in electronic devices. Applicant's claims are deemed to be anticipated over the getter composition as set forth in Example 1.

15. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Cho et al. U.S. Patent Number 6,835,682.

Cho et al teach an alkali-containing magnesium borosilicate glass composition comprising, in mole %, 10-25% SiO₂, 10-25% B₂O₃, 5-10% BaO, 40-65% MgO, 0.5-3% ZrO₂, 0.3-3% P₂O₅, and 0.2-5% M₂O where M is selected from the group of alkali elements and mixtures thereof. The invention is further directed to a castable dielectric composition comprising a dispersion of finely divided solids comprising, based on solids: (a) 50-90 wt. % the glass composition as described above; (b) 10-50 wt. % ceramic filler; both dispersed in a solution of (c) an organic polymeric binder; and (d) a volatile organic solvent. The invention is still further directed to the castable dielectric composition described above used in a method of forming a high TCE LTCC green tape by casting a thin layer of the castable dispersion onto

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a flexible substrate and heating the cast layer to remove the volatile organic.

Applicant's claims are deemed to be anticipated over Examples 18-31.

16. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Tokuyama et al. U.S. Patent Number 4,615,823.

Tokuyama et al teach a desiccating agent comprising a mixture of (A) a deliquescent salt (B) a hydrolyzed copolymer of 50 to 99.8% by mole of vinyl acetate and 50 to 0.2% by mole of an unsaturated dicarboxylic acid in which a degree of hydrolysis of the vinyl acetate component is not less than 70% by mole, and (C) a short cut fibrous material as main components. The desiccating agent can be reused at least 10 times and has a high hygroscopic power and capacity, see abstract and column 2, lines 53-62. Applicant's claims are deemed to be anticipated over the composition set forth in Table 3 when the glass fibers are used as the fibrous material.

17. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokuyama et al. U.S. Patent Number 4,615,823.

Tokuyama et al has been described above and differs from applicant's claimed invention in that there is not a direct teaching (i.e. by way of an example) to where applicant's particularly claimed polymeric binders and organic solvents species are used. It would have been obvious to one having ordinary skill in the art to use the broad disclosure of the patent as motivation to actually used

applicant's claimed polymeric binders and organic solvents since such species come with the broad disclosure of the patent, see column 2, lines 20-43, and examples 5-6.

18. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burroughs U.S. Patent Number 3,235,089.

Burroughs teaches an improved filter body and a method of making the same, and more particularly to a desiccant filter body which is composed of particles of certain specific adsorbents bonded together by ceramic bonds. In accordance with the Burroughs' invention these and other objects are achieved by means of a composite filter body comprising particles of an adsorbent selected from the group consisting of activated alumina, molecular sieves and mixtures thereof bonded by a ceramic flux material (i.e. glass frit) and a binder. The bodies preferably contain at least 50% by weight adsorbent and the particle size of the adsorbent particles will normally range from 14 to 60 mesh, see column 1, lines 1-52, column 2, lines 44-52, column 3, line 13 to column 4, line 21. Burroughs differs from applicant's claimed invention only in that there is no direct teaching (i.e. by way of an example) to where the binder material used is an organic binder material.

It would have been obvious to one having ordinary skill in the art to use the broad disclosure of the patent at, column 3, lines 56 to column 4, lines 21 as strong motivation to actually use an organic binder material in the composition.

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Applicant's particular claimed binder materials are deemed to fall within the broad disclosure of organic binders. In any case, applicant has set forth no showing of any superior and unexpected results that may come about with the use of applicant's particularly claimed organic binders.

19. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Shores U.S. Patent Number 5,244,707.

Shores teaches a sealed enclosure of an electronic device incorporates a coating or adhesive with desiccant properties. The coating or adhesive comprises a protonated aluminosilicate powder dispersed in a polymer. Applicant's claims are deemed to be anticipated over Example 2. Please note that the Cabosil M-5 component is deemed to read on applicant's claimed glass frit component.

20. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shores U.S. Patent Number 5,244,707.

Shores has been described above and differs from applicant's claimed invention in that there is not a direct teaching (i.e. by way of an example) to where applicant's particularly claimed polymeric binders and organic solvents species are used. It would have been obvious to one having ordinary skill in the art to use the broad disclosure of the patent as motivation to actually use applicant's claimed polymeric binders and organic solvents since such species

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come with the broad disclosure of the patent, see column 4, lines 8-30, and examples 11-12.

21. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shores U.S. Patent number 5,591,379.

Shores teaches a composition of matter having moisture gettering properties and applicable as coating or adhesive in a hermetic microelectronic device. The composition is applied to the interior surface of the packaging at a thickness of 0.1-25 mil and comprises a desiccant finely dispersed in a binder which is a water vapor permeable solid material. This may be a polymer, porous ceramic or glass. The desiccant is a particulate solid with 0.2-100 micrometer average particle size. It ought to be able to absorb from a one atmosphere pressure gas containing one volume percent water vapor at least four parts by weight of water vapor per 100 parts by weight of desiccant at 25.degree. C., and for high reliability devices, it should also be able to absorb at least two parts by weight of water vapor per 100 parts by weight of desiccant at 100.degree. C. The desiccant to binder volume ratio ought to be between 0.002 and 2. Molecular sieves are especially useful as the desiccant component of the composition of this invention, see abstract, column 3, lines 3-63, and column 3, line 64 to column 4, line 12.

Shores differs from applicant's claimed invention in that there is no direct teaching (i.e. by way of an example) to where a glass binder is used in

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combination with a polymeric binder. It would have been obvious to one having ordinary skill in the art to use the broad disclosure of the patent as motivation to use admixtures of binders such as glass binders and organic polymeric binders. In any case the courts have constantly declared that to employ two or more materials in combination for the same purpose they are taught as being individually useful is not patentable outside a showing of superior and unexpected results, see *In re Kerhoven*, 205, USPQ 1069 (CCPA 1980).

Double Patenting

22. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

23. Claims 1-5 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 4-9 of U.S. Patent No. 6,835,682.

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Although the conflicting claims are not identical, they are not patentably distinct from each other because there is extensive overlap in the claimed subject matter.

24. Claims 1-5 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 2-7 of copending Application No. 10/634,505. Although the conflicting claims are not identical, they are not patentably distinct from each other because there is extensive overlap in the claimed subject matter.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Prior-Art Cited But Not Applied

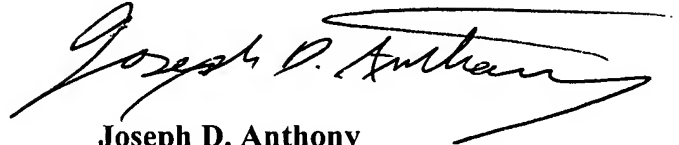
25. Any prior-art reference which is cited on FORM PTO-892 but not applied, is cited only to show the general state of the prior-art at the time of applicant's invention.

Examiner Information

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (571) 272-1117. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (571) 272-1119. The centralized FAX machine number is (571) 273-8300. All other papers received by FAX will be

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treated as Official communications and cannot be immediately handled by the
Examiner.

A handwritten signature in black ink, appearing to read "Joseph D. Anthony", with a long horizontal flourish extending to the right.

Joseph D. Anthony
Primary Patent Examiner
Art Unit 1714

11/11/05